

bonded to one of said plurality of contact locations;

each of said plurality of elongated conductors extends outwardly away from said surface to form an array of elongated conductors;

said array of elongated conductors being embedded in an elastomeric material;

said elongated conductors being embedded in an elastomeric material;

a second space transformer in electrical connection with said first space transformer;

said first space transformer has a second surface with a second plurality of contact locations thereon and said second space transformer has a surface with a plurality of third contact locations thereon;

an electrical interconnection means for electrically interconnecting said second plurality of electrical contact locations to said third plurality of electrical contact locations;

a holding means for holding said first space transformer in a fixed spatial relationship with respect to said second space transformer; and

a means for disposing said probe tip ends in electrical contact with contact location on said electronic device;

said elastomeric material has a depression surrounding at least at least a part of one of said [probe tip ends] elongated conductors.

25. (Amended) An apparatus for testing or burning in an electronic device having contact locations comprising:

a layer of elastomeric material having a first side and a second side;

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a plurality of elongated electrical conductors extending from said first side to said second side; each of said elongated conductors has an end fixedly bonded to an electrical contact location on a substrate;

means for holding said layer and substrate;

means for retractably disposing said layer adjacent said electronic device so that said elongated electrical conductors [are] can be placed in electrical contact with said contact locations and can be removed from being in electrical contact with said contact locations.

27. (Amended) A method for testing an electronic device comprising:

providing [an apparatus according to claims 25 and 27] a layer of elastomeric material having a first side and a second side; a plurality of elongated electrical conductors extending from said first side to said second side; each of said elongated conductors has an end fixedly bonded to an electrical contact location on a substrate;

retractably disposing said layer adjacent said electronic device so that said elongated electrical conductors [are] can be placed in electrical contact with said contact locations and can be removed from being in electrical contact with said contact locations;

and testing said electronic device.

28. (Amended) A method for burning-in an electronic device comprising:

providing a layer of elastomeric material having a first side and a second side;  
a plurality of elongated electrical conductors extending from said first said to said second side; each of said elongated conductors has an end fixedly bonded to an electrical contact location on a substrate;

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retractably disposing said layer adjacent said electronic device so that said elongated electrical conductors [are] can be placed in electrical contact with said contact locations and can be removed from being in electrical contact with said contact locations.

[providing an apparatus according to claim 26 and] burning-in said electronic device.

Add claims 29-58.

29. (Added) A method comprising:

providing a surface that has a plurality of locations;

bonding a wire to said bondable location;

drawing said wire away from said bondable location and holding an end of said wire in place while said wire is held in place to form a cut end;

cutting said wire leaving a free-standing wire bonded at one end to said bondable location;

said wire projecting away from said surface and terminating at said cut end.

30. (Added) A method according to claim 29 wherein said free-standing wire is nonlinear.

31. (Added) A method according to claim 29 wherein said wire has a linear portion.

32. (Added) A method according to claim 29 wherein said wire has a linear portion making a nonorthogonal angle to said surface.

33. (Added) A method according to claim 29 wherein said bondable location is a wire bondable location.

34. (Added) A method according to claim 33 wherein said wire is bonded with a wire bonding tool.

35. (Added) A method according to claim 34 wherein said wire bonding tool is drawn away from said surface to form a desired shape to said wire.

36. (Added) A method according to claim 35 wherein said end is cut with a knife edge to form said cut end.

37. (Added) A method of claim 29 wherein a plurality of wires are bonded to a plurality of bondable locations to form a plurality of free-standing wires.

38. (Added) A method according to claim 37 further including disposing a mold to surround said plurality of free-standing wires

39. (Added) A method according to claim 38, further including:

adding to said mold a curable compound to form a cured compound removing said mold to leave said plurality of free-standing wires embedded in said cured compound.

40. (Added) An electronic device probe comprising:

a surface having a plurality of contact locations thereon;

a plurality of elongated electrical conductors each having a first end and a second end; each of said contact locations has a said first end of one of said plurality of elongated conductors physically attached thereto by the same type of bond, said second ends project away from said surface.

41. (Added) An electronic device probe according to claim 40 wherein said elongated conductors project away from said surface.

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52. (Added) ~~An electronic device probe according to claim 42 wherein said material is an elastomeric material.~~

53. (Added) An electronic device probe according to claim 26 wherein said electronic device is a semiconductor wafer having a plurality of chips thereon.

54. (Added) A structure according to claim 31 wherein said structure is a probe for an electronic device.

55. (Added) A structure according to claim 46 wherein said electronic device comprises a plurality of chips.

56. (Added) An electronic device probe comprising:

a surface having a plurality of contact locations thereon;  
a plurality of elongated electrical conductors each having a first end and a second end;  
each of said contact locations has a said first end of one of said plurality of elongated conductors physically attached thereto by a bond selected from the group consisting of a wire bond, a laser weld bond and a solder bond, said second ends project away from said surface.

57. (Added) An electronic device probe comprising:

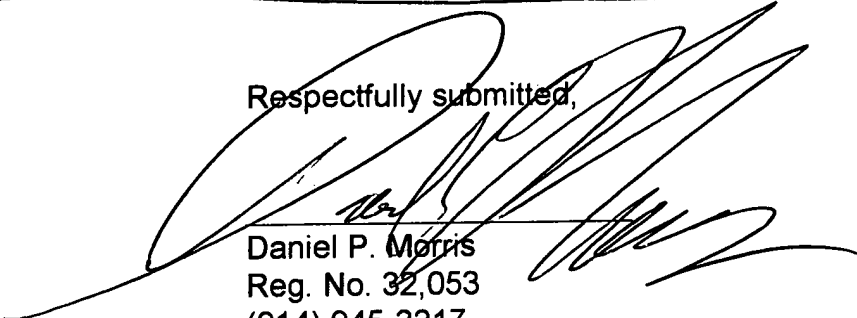
a surface having a plurality of contact locations thereon;  
a plurality of electrically conducting wires each having a first end and a second end;  
each of said contact locations has said first end of one of said electrically conducting wires bonded thereto with the same type of bond;

said second ends of said wires project away from said surface with a shape permitting ~~said wires to bend when said second ends are pressed against an electronic device.~~

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58. (Added) An electronic device probe according to claim 3, 31, 47 or 48 wherein said surface is part of a space transformer comprising another surface opposite said surface, said opposite surface has a plurality of space transformer contact locations disposed thereon, electrically conductors disposed within said space transformer electrically connecting said plurality of contact locations on said surface with said plurality of said space transformer contact locations.

Respectfully submitted,

  
Daniel P. Morris  
Reg. No. 32,053  
(914) 945-3217

IBM CORPORATION  
Intellectual Property Law Dept.  
P.O. Box 218  
Yorktown Heights, New York 10598